

Paper No. 16

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

*Ex parte* ALBERT D. BAKER, VINCENT H. CHOY, VEDA GUNDANNA,  
JAMES CHENG-PING LIU, and EILEEN PATRICIA ROSE

Appeal No. 2003-1833  
Application No. 09/272,955

ON BRIEF

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U.S. PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Before FLEMING, RUGGIERO, and BARRY, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

**DECISION ON APPEAL**

A patent examiner rejected claims 1-4, 6-8, 10-14, 16-18, and 20-22. The appellants appeal therefrom under 35 U.S.C. § 134(a). We affirm-in-part.

**BACKGROUND**

The invention at issue on appeal concerns wireless terminals featuring soft-labeled keys ("SLKs"). Because the functions associated with SLKs can be varied, the same physical keys can represent multiple features at different times. A wireless terminal featuring SLKs generally includes a screen displaying labels associated with the SLKs. According to the appellants, in a conventional switching system, a switch

updates the labels based on functional modes associated with an operating context of the wireless terminal or in response to commands entered by a user of the wireless terminal. (Spec. at 1.)

The appellants explain that the conventional update strategy can produce problems. If the switch provides updates on a "per-key-depression basis," it expends a great part of its processing capacity simply updating the labels of the SLKs. (*Id.*) The delays, in turn, can lead to an "interpretive race condition." (*Id.* at 2.) More specifically, when the user depresses multiple SLKs, the switch sends a collection of updates to the wireless terminal, and the first update is processed and displayed. If the user then depresses another SLK, the switch cannot know if all the prior updates have been processed by the terminal and must impose interpretive assumptions about the labels being displayed then. Furthermore, add the appellants, the conventional update strategy of transmitting updates to terminals consumes much bandwidth. (*Id.*)

In contrast, the appellants' invention uses a local state machine to control the SLKs and the associated labels of a wireless terminal. More specifically, a switch initially downloads the state machine to the terminal. The appellants assert that use of the state machine resolves interpretive race conditions by maintaining an explicit set of

state-based assignments in the terminal and reduces bandwidth consumption by reducing or eliminating system updates to the terminal. (*Id.* at 7.)

A further understanding of the invention can be achieved by reading the following claim.

1. A method of controlling a plurality of terminals in a communication system, the method comprising the step of:

utilizing an automated set of operations to generate information representative of at least a first state machine and a second state machine, the first state machine for controlling a first set of labels for soft-labeled keys of a first terminal associated with a first user, and the second state machine for controlling a second set of labels for soft-labeled keys of a second terminal associated with a second user, wherein the automated set of operations process input indicative of terminal features desired by each of said first user and said second user in order to generate the respective first and second state machines, the first and second state machines producing different soft-labeled key displays for the respective first and second terminals.

Claims 1-4, 6-8, 10-14, 16-18, and 20-22 stand rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 5,965,655 ("Suzuki").

#### OPINION

Our opinion addresses the claims in the following order:

- claims 1, 2, 8, 10-12, 18, and 20-22
- claims 3-7 and 13-17.

A. CLAIMS 1, 2, 8, 10-12, 18, AND 20-22

"[T]o assure separate review by the Board of individual claims within each group of claims subject to a common ground of rejection, an appellant's brief to the Board must contain a clear statement for each rejection: (a) asserting that the patentability of claims within the group of claims subject to this rejection do not stand or fall together, and (b) identifying which individual claim or claims within the group are separately patentable and the reasons why the examiner's rejection should not be sustained." *In re McDaniel*, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002) (citing 37 C.F.R. §1.192(c)(7) (2001)). "If the brief fails to meet either requirement, the Board is free to select a single claim from each group of claims subject to a common ground of rejection as representative of all claims in that group and to decide the appeal of that rejection based solely on the selected representative claim." *Id.*, 63 USPQ2d at 1465.

Here, the appellants stipulate, "claims 1, 2, 8, 10-12, 18 and 20-22 stand or fall together. . . ." (Appeal Br. at 4.) We select claim 1 from the group as representative of the claims therein. With this representation in mind, rather than reiterate the positions of the examiner or the appellants *in toto*, we focus on the three points of contention therebetween, viz.:

- automated set of operations
- two state machines
- input of desired features.

### 1. Automated Set of Operations

The examiner finds, "Suzuki et al teach a method for controlling a terminal (1100a or 1100b or 2100) on a communication system comprising the steps of utilizing an automated set of operations (operation program in terminals). . . ." (Examiner's Answer at 3.) The appellants argue, "[t]his internal programming for a given device cannot reasonably be viewed as comprising a portion of the claimed 'automated set of operations.'" (Reply Br. at 3.)

"[A]nticipation is a question of fact." *In re Hyatt*, 211 F.3d 1367, 1371, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000) (citing *Bischoff v. Wethered*, 76 U.S. (9 Wall.) 812, 814-15 (1869); *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997)). "A claim is anticipated . . . if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (citing *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 USPQ 1264, 1270 (Fed. Cir. 1984); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771, 218 USPQ 781, 789 (Fed. Cir. 1983)). Of course, "this is not an 'ipsissimis verbis' test." *In re Bond*, 910 F.2d 831, 832, 15

USPQ2d 1566, 1567 (Fed. Cir. 1990) (citing *Akzo N.V. v. United States Int'l Trade Comm'n*, 808 F.2d 1471, 1479 & n.11, 1 USPQ2d 1241, 1245 & n.11 (Fed. Cir. 1986)).

Here, Suzuki discloses a "radio communication system . . . which comprises: portable communication devices 1100-a and 1100-b . . . ; radio base stations 1200-a, 1200-b, 1200-c and 1200-d for relaying the communication among the portable communication devices; switching devices 1300-a and 1300-b for switching connections among the radio base stations; and a transmission device 1400 for connecting between the switching devices. . . ." Col. 23, ll. 32-41. Regarding the portable communication devices, the examiner's finding that each device includes "operation programs" is uncontested. The appellants' argument that "[t]his internal programming . . . cannot reasonably be viewed as comprising a portion of the claimed 'automated set of operations,'" (Appeal Br. at 3), moreover, is conclusory. Therefore, we agree with the examiner's finding that the claimed "automated set of operations" reads on the operations programs of the reference's portable communication devices.

## 2. Two State Machines

The examiner finds, "Suzuki has disclosed a first state machine (1100a) and a second state machine (1100b) [that] can produce different SLK (soft label key) displays (e.g. English and Japanese) for the respective first and second terminals (1100a, 1100b

. . . see . . . column 27, lines 51-59 and column 28, lines 15-26). . . ." (Examiner's Answer at 3-4.) The appellants argues, "[t]he fact that one of the devices 1100-a or 1100-b may be configured for displaying SLK labels in a different language than the other does not indicate that the devices utilize different state machines." (Reply Br. at 3.)

In addressing the point of contention, the Board conducts a two-step analysis. First, we construe the representative claim at issue to determine its scope. Second, we determine whether the construed claim is anticipated.

a. Claim Construction

"Analysis begins with a key legal question — *what* is the invention *claimed*?" *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). In answering the question, "the Board must give claims their broadest reasonable construction. . . ." *Hyatt*, 211 F.3d at 1372, 54 USPQ2d at 1668. "Moreover, limitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184, 26 USPQ2d 1057, 1059 (Fed. Cir. 1993) (citing *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)).

Here, contrary to the appellants' argument, the limitations of claim 1 do not require "different" state machines. Instead, the representative claim merely recites in pertinent part the following limitations: "a first state machine and a second state machine, the first state machine for controlling a first set of labels for soft-labeled keys of a first terminal associated with a first user, and the second state machine for controlling a second set of labels for soft-labeled keys of a second terminal associated with a second user. . . ." Giving the claim its broadest, reasonable construction, the limitations require two state machines, each controlling labels for the SLKs of an associated terminal.

b. Anticipation Determination

"Having construed the claim limitations at issue, we now compare the claims to the prior art to determine if the prior art anticipates those claims." *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349, 64 USPQ2d 1202, 1206 (Fed. Cir. 2002). As aforementioned, Suzuki discloses two terminals, viz., its portable communication devices. The appellants admit that "each of the devices utiliz[es] . . . [a] state machine." (Reply Br. at 3.) For its part, the reference explains that each state machine includes "an initial communication waiting state," col. 5, ll. 25-26; "a 'memory call' state," *id.* at ll. 27; and "a speaking state (line connected state). . . ." *Id.* at ll. 28-29.



Furthermore, Figures 4A-4C of Suzuki show that the labels for the SLKs of each device are controlled according to the state machines. "In th[e] initial communication waiting state of FIG. 4A, the input key 1A is [labeled] as an input key for switching the operation state into a 'memory call' mode, the input key 1C is [labeled] as an input key for switching the operation state into an 'auxiliary function' mode, and the input key 1D is [labeled] as an input key for switching the operation state into a 're-dial' mode. Col. 5, ll. 37-44. In the memory call state of Figure 4B, in contrast, "the input key 1A is [labeled] as a 'call' key, the input key 1B is [labeled] as an upward cursor key, the input key 1C is [labeled] as a 'return' key, and the input key 1D is [labeled] as a downward cursor key. . . ." *Id.* at ll. 60-64. Therefore, we agree with the examiner's finding that each of the reference's portable communication devices includes a state machine, which controls labels for its SLKs

### 3. Input of Desired Features

The examiner finds, "Suzuki has disclosed a first state machine (1100a) and a second state machine (1100b) [that] can produce different SLK (soft label key) displays (e.g. English and Japanese) for the respective first and second terminals (1100a, 1100b . . . see . . . column 27, lines 51-59 and column 28, lines 15-26). . . ." (Examiner's Answer at 3-4.) The appellants argue, "there is no disclosure in Suzuki of the automated set of operations processing input indicative of terminal features desired by

each of a first user and a second user in order to generate respective first and second state machines, thereby producing different SLK displays for the respective first and second terminal." (Appeal Br. at 5-6.)

a. Claim Construction

Claim 1 recites in pertinent part the following limitations: "the automated set of operations process input indicative of terminal features desired by each of said first user and said second user in order to generate the respective first and second state machines, the first and second state machines producing different soft-labeled key displays for the respective first and second terminals." Giving the claim its broadest, reasonable construction, the limitations require processing input from users so that each terminal's state machine displays labels for its SLKs differently.

b. Anticipation Determination

As aforementioned, Suzuki teaches portable communication devices; each device includes a state machine; and the labels for the SLKs of each device are controlled according to the respective state machine. Furthermore, each device features "an operation mode for enabling a user to change the[] input key function assignment settings." Col. 27, ll. 52-54. In the operation mode, we find that each device processes input from a user so that its state machine displays labels for its SLKs

differently. For example, "a user can select a display in a desired language by means of a display format setting mode according to his need." Col. 28, ll. 32-36. "In this manner, it becomes possible to provide a customized portable communication device which is convenient to use for each user." Col. 27, ll. 54-56. Therefore, we affirm the anticipation rejection of claim 1 and of claims 2, 8, 10-12, 18, and 20-22, which fall therewith.

#### B. CLAIMS 3-7 AND 13-17

The examiner asserts, "Suzuki teaches a control table (see figures 5-9) specifying a set of label identifiers (MEMORY CALL, RE-DIAL, [and] AUX.FUNCTION) for each of at least a subset of the plurality of states of the terminal (MEMORY CALL STATE, RETURN STATE), and a label table specifying, for each of at least a subset of the labels (e.g. CALL, RETURN) identified by a given one of the label identifiers (RE-DIAL), a character string (RE-DIAL) corresponding to the label, a feature identifier associated with the label, and presentation attribute (see figures 5-9 and column 28, lines 15-39)." (Examiner's Answer at 4.) The appellants argue, "if MEMORY CALL, RE-DIAL and AUX FUNCTION in element 401 correspond to the claimed label identifiers, there must be a label table for at least one of MEMORY CALL, RE-DIAL and AUX FUNCTION that includes a corresponding character string, feature identifier and

presentation attribute. These limitations are not met by the RE-DIAL entry in element 401 as argued by the Examiner." (Reply Br. at 6.)

### 1. Claim Construction

"Claims are not interpreted in a vacuum, but are part of and are read in light of the specification." *Slimfold Mfg. Co. v. Kinkead Indus., Inc.*, 810 F.2d 1113, 1116, 1 USPQ2d 1563, 1566 (Fed. Cir. 1987) (citing *Hybritech Inc. v. Monoclonal Anti-bodies, Inc.*, 802 F.2d 1367, 1385, 231 USPQ 81, 94-95 (Fed. Cir. 1986); *In re Mattison*, 509 F.2d 563, 565, 184 USPQ 484, 486 (CCPA 1975)). Here, claims 3 and 13 recite in pertinent part the following limitations: "a control table specifying a set of label identifiers for each of at least a subset of the plurality of states of at least one of the first and second terminals, and a label table specifying, for each of at least a subset of the labels identified by a given one of the label identifiers, a character string corresponding to the label, a feature identifier associated with the label, and a presentation attribute."

The appellants' specification describes the "feature identifier associated with the label" as "an SBID." (Spec. at 13.) In turn, the specification explains that an "SBID" is a "system code to access an associated feature," (*id.* at 8)," and "that SBIDs represent internal system identifiers for specific switch-based features." (*Id.*) Reading the limitations in light of the specification, claims 3 and 13 require a label table specifying,

for each of at least a subset of labels, a character string corresponding to the label, an internal system code for accessing a switch-based feature, and a presentation attribute.

## 2. Anticipation Determination

"[A]bsence from the reference of any claimed element negates anticipation."  
*Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986). Here, Suzuki's "FIG. 5 shows a transition of the operation state which starts from the communication waiting state, goes to the 'memory call' state to connect a communication line, and then returns to the communication waiting state again by disconnecting a communication line." Col. 8, ll. 12-16. In "the communication waiting state, . . . the display unit 2 displays function names such as 'memory call,' 'aux. function' and 're-dial,' . . . ." Col. 8, ll. 19-21. Although we are persuaded that the reference's function names anticipate the claimed "character string[s]," we are uncertain on which element of the reference the examiner reads the claimed "feature identifier." Although the limitations may be taught in Suzuki, we "decline to substitute speculation as to the rejection for the greater certainty which should come from the [examiner] in a more definite [explanation] of the grounds of rejections." *Ex parte Gambogi*, 62 USPQ2d 1209, 1212 (Bd.Pat.App. & Int. 2001).

The absence of a label table specifying, for each of at least a subset of labels, a character string corresponding to the label, an internal system code for accessing a switch-based feature, and a presentation attribute, negates anticipation. Therefore, we reverse the anticipation rejection of claim 3; of claims 4-7, which depend therefrom; of claim 13; and of claims 14-17, which depend therefrom.

### CONCLUSION

In summary, the rejection of claims 1, 2, 8, 10-12, 18, and 20-22, under § 102(e) is affirmed. The rejection of claims 3-7 and 13-17 under § 102(e), however, is reversed.

"Any arguments or authorities not included in the brief will be refused consideration by the Board of Patent Appeals and Interferences. . . ." 37 C.F.R. § 1.192(a). Accordingly, our affirmance is based only on the arguments made in the briefs. Any arguments or authorities omitted therefrom are neither before us nor at issue but are considered waived. *Cf. In re Watts*, 354 F.3d 1362, 1367, 69 USPQ2d 1453, 1457 (Fed. Cir. 2004) ("[I]t is important that the applicant challenging a decision not be permitted to raise arguments on appeal that were not presented to the Board.") No time for taking any action connected with this appeal may be extended under 37 C.F.R. § 1.136(a).

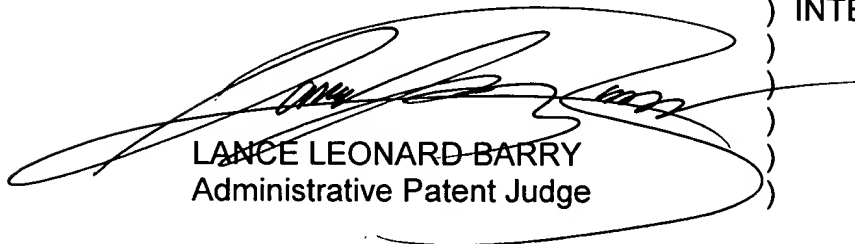
AFFIRMED-IN-PART



MICHAEL R. FLEMING  
Administrative Patent Judge



JOSEPH F. RUGGIERO  
Administrative Patent Judge



LANCE LEONARD BARRY  
Administrative Patent Judge

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